

Title: SI-MOS HIGH-FREQUENCY SEMICONDUCTOR DEVICE AND THE MANUFACTURING METHOD  
OF THE SAME

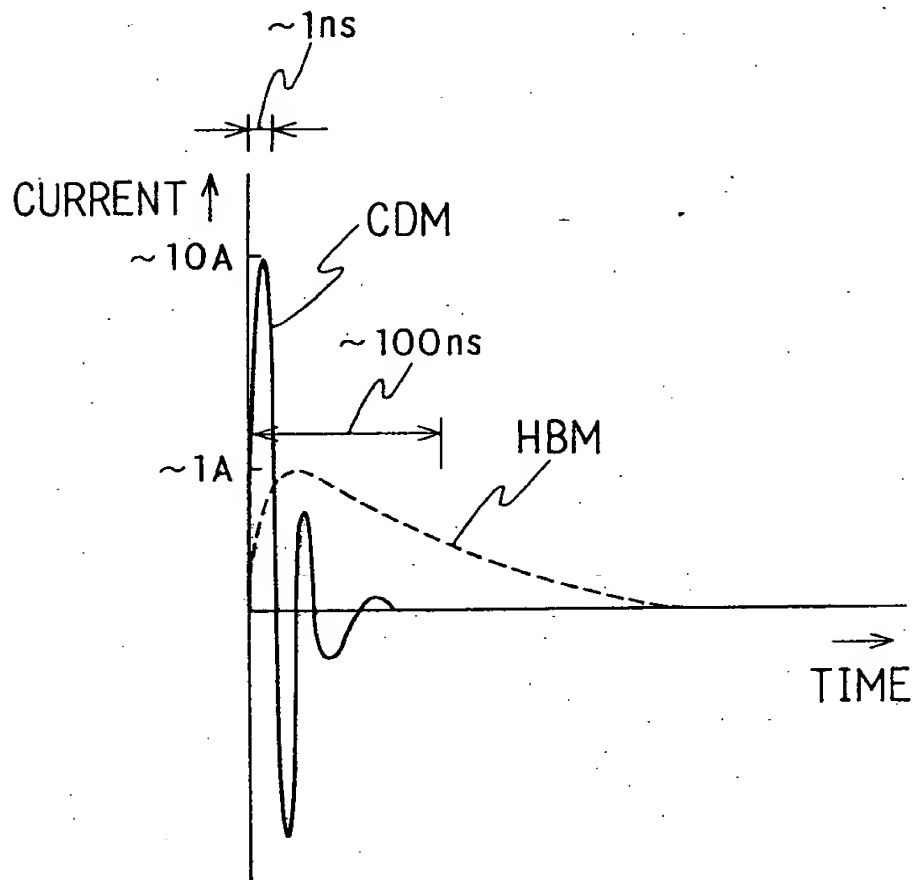
Inventors: Takahiro OHNAKADO

Atty Docket No.: 401308

Leydig, Voit & Mayer, Ltd.

202-737-6770

FIG. 1



0041501.032501

Title: SI-MOS HIGH-FREQUENCY SEMICONDUCTOR DEVICE AND THE MANUFACTURING METHOD  
OF THE SAME

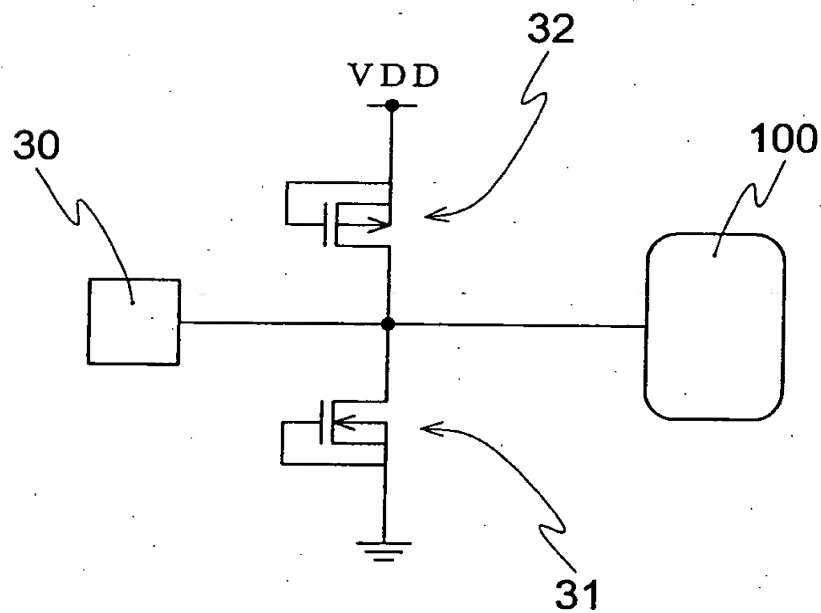
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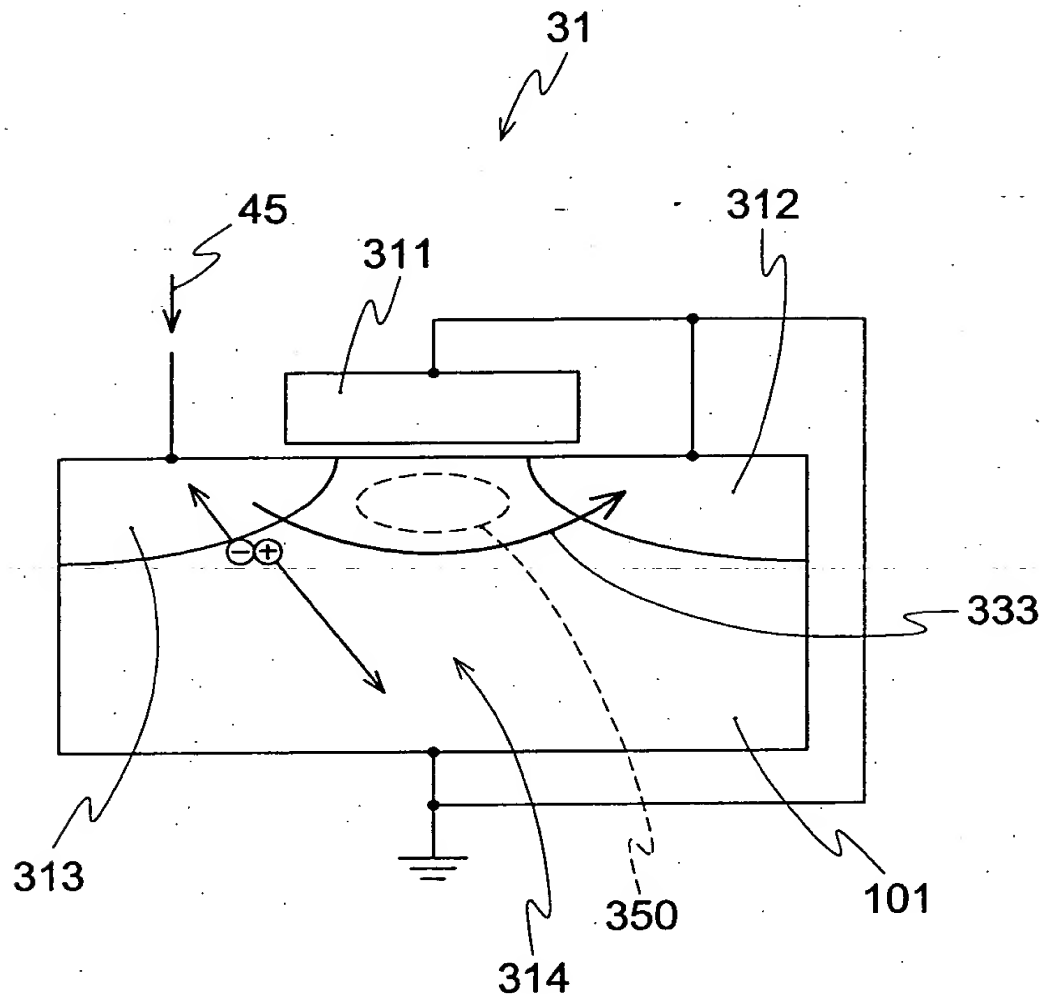
202-737-6770

FIG. 2



09941584.072501  
T05220 T0527660

FIG. 3



0091584.02504  
T09240 T0921600

FIG. 4

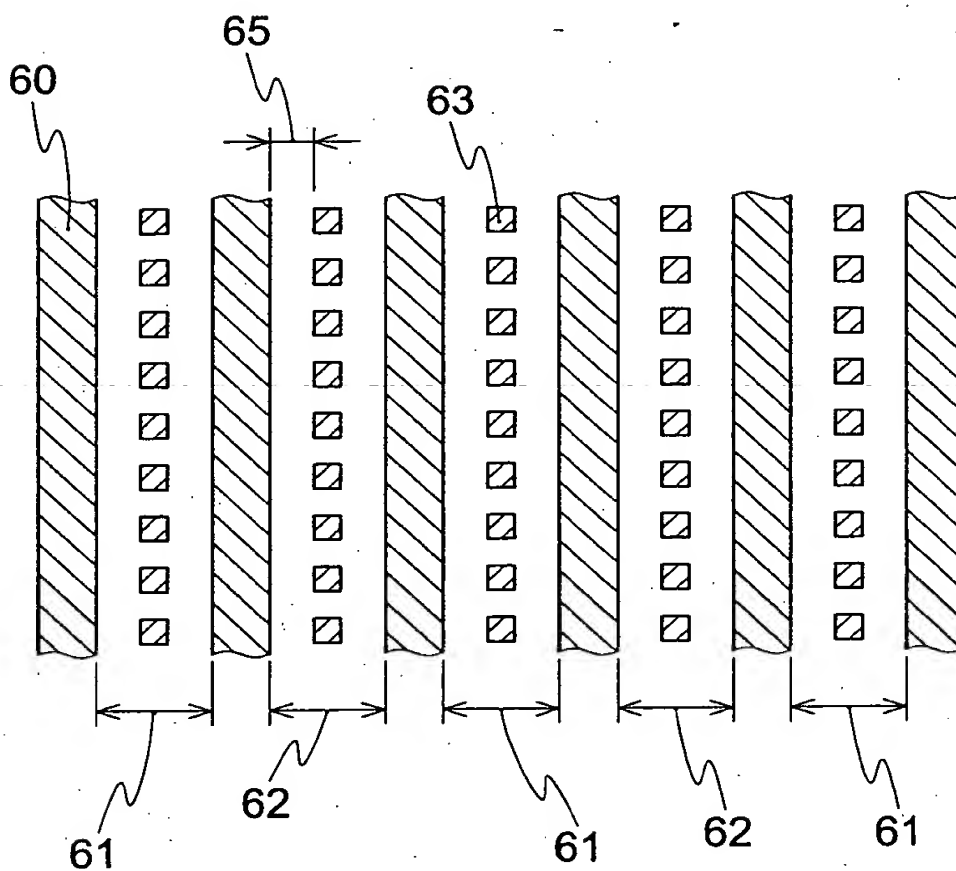
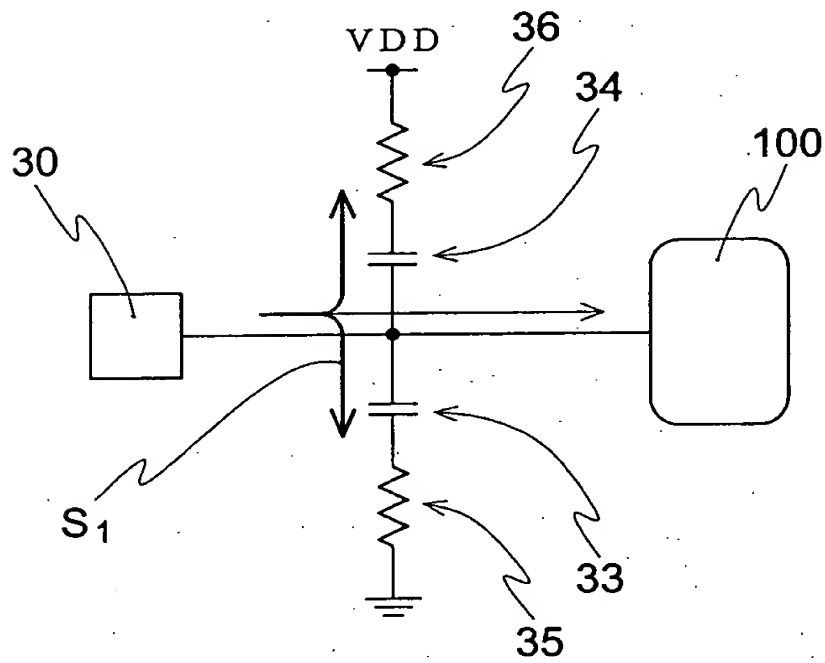


FIG. 5



0041504.02501  
105240\*105240

FIG. 6(a)

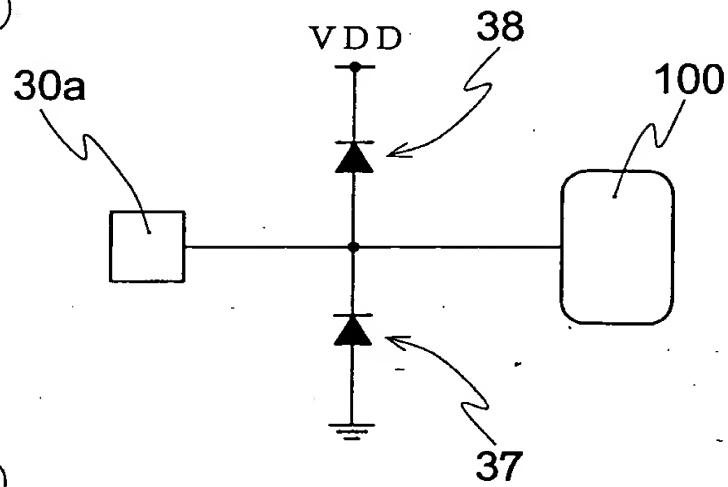


FIG. 6(b)

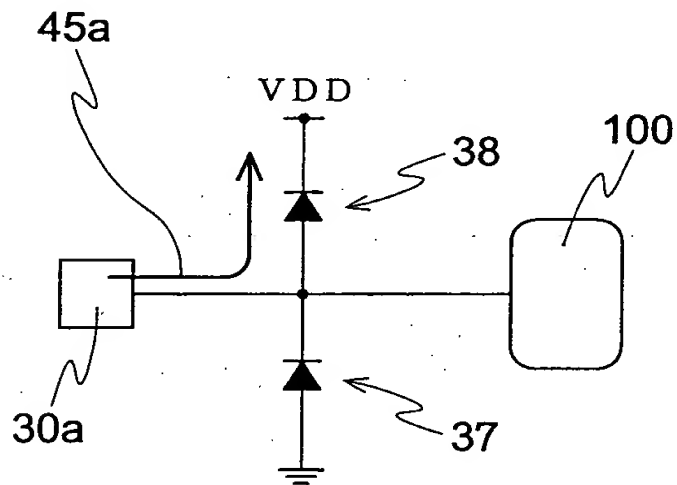


FIG. 6(c)

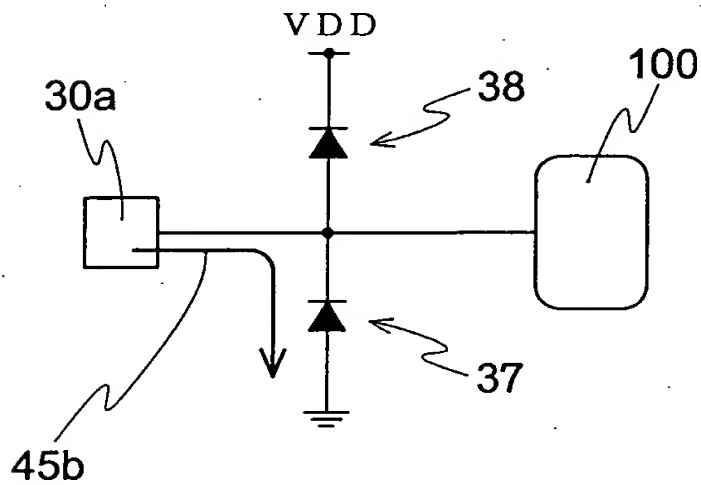


FIG. 7(a)

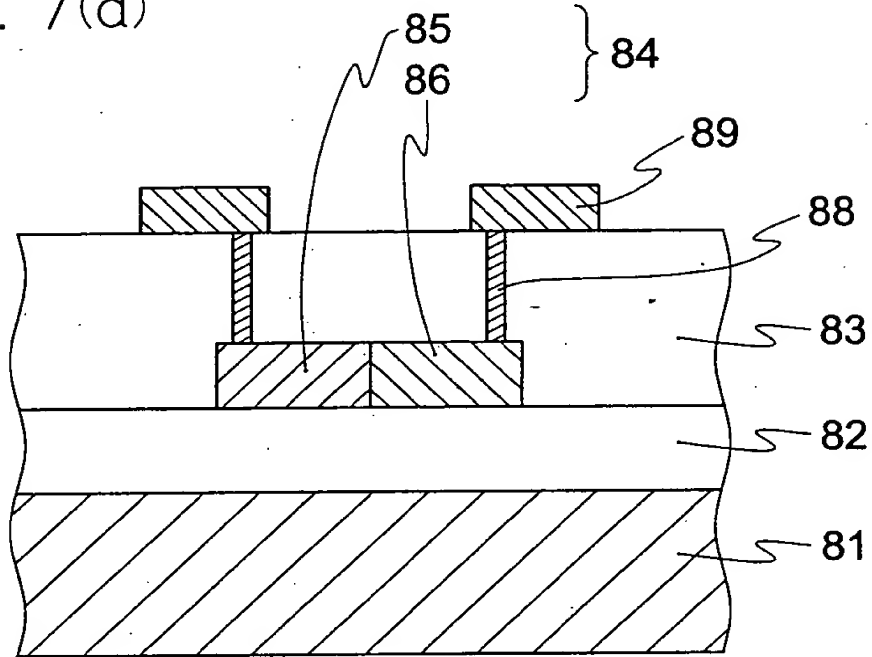


FIG. 7(b)

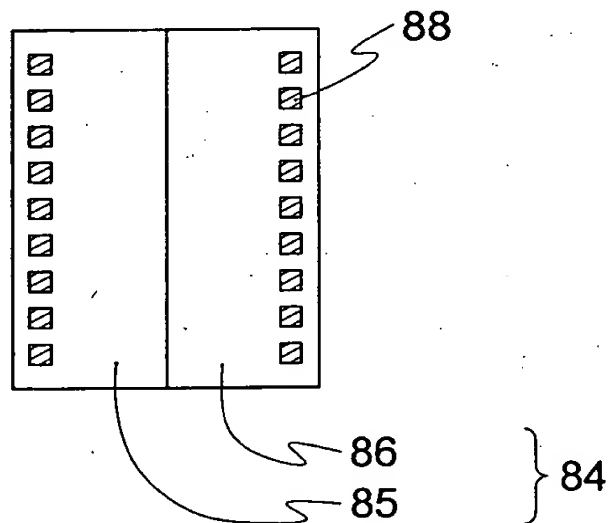


FIG. 8

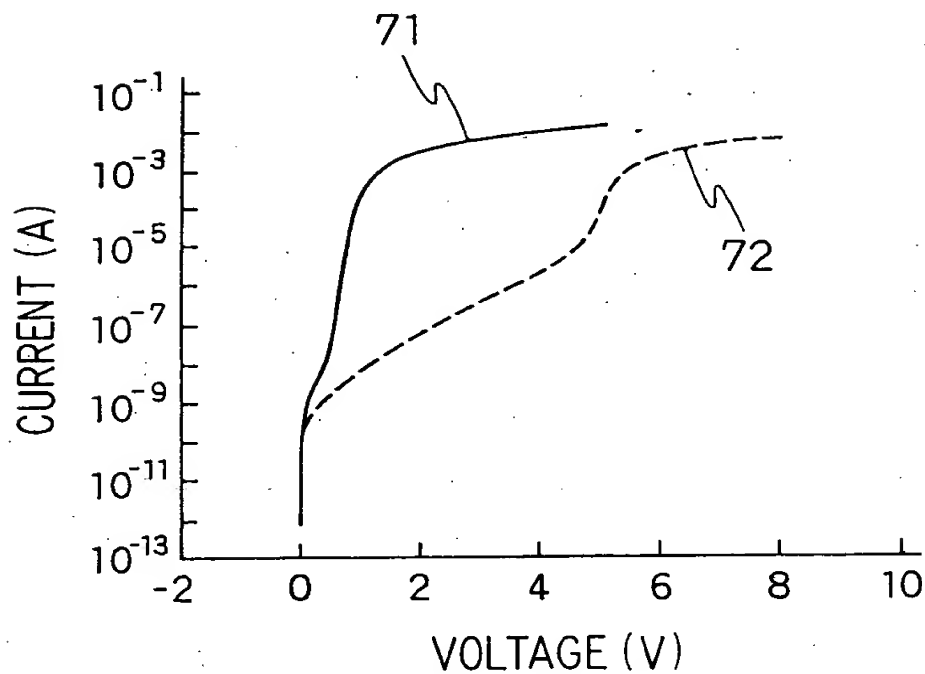




FIG. 9

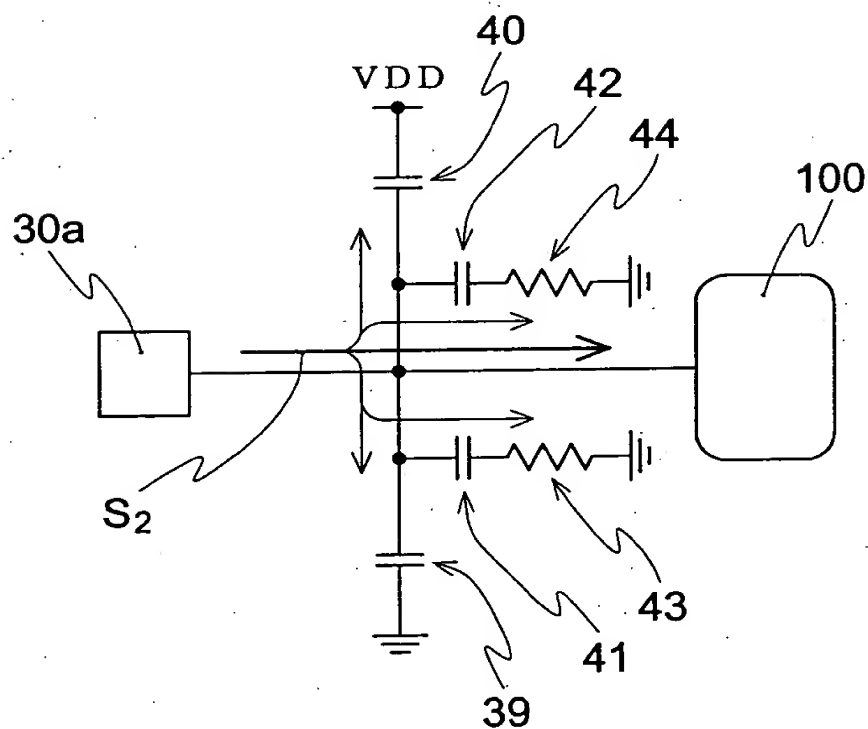
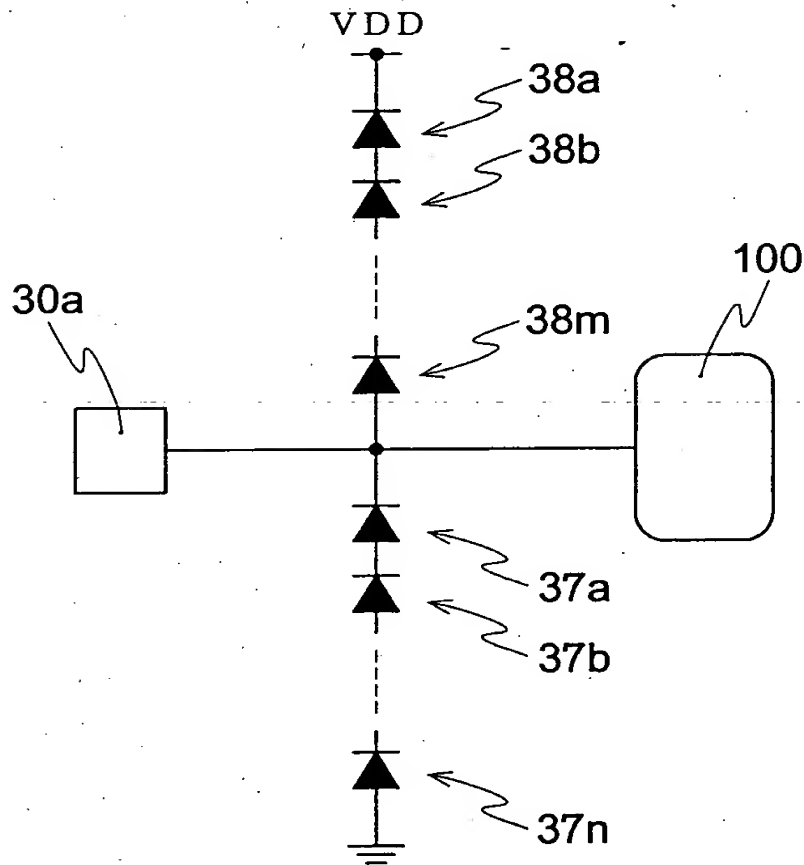


FIG. 10



A cross-sectional view of a semiconductor device. The top surface is divided into three regions labeled 200, 202, and 201 from left to right. The surface is flat in regions 200 and 201, and has a downward step in region 202. The substrate is labeled 110. A vertical layer is labeled 112. A horizontal layer is labeled 111. A cross-section line is indicated by a line with an 'X' and a circle with a minus sign.

[illegible]

FIG. 12(a)

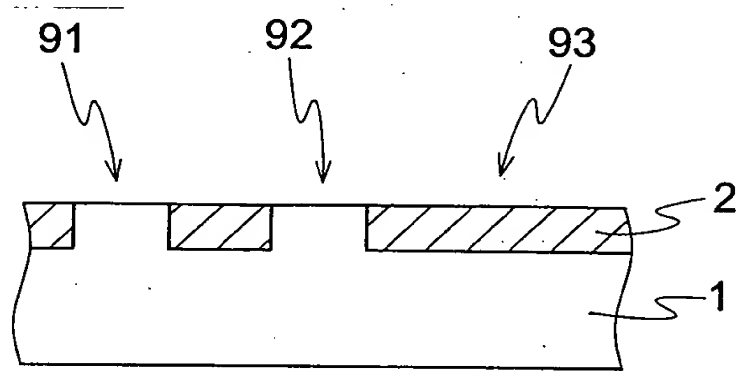


FIG. 12(b)

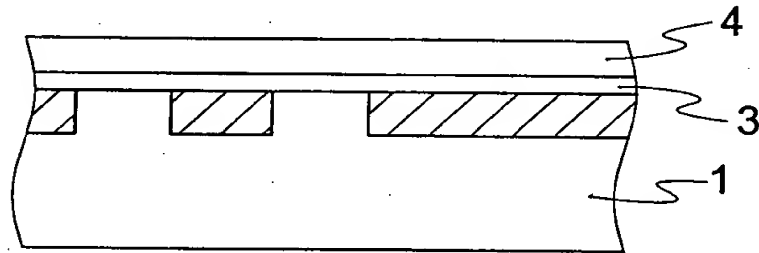


FIG. 12(c)

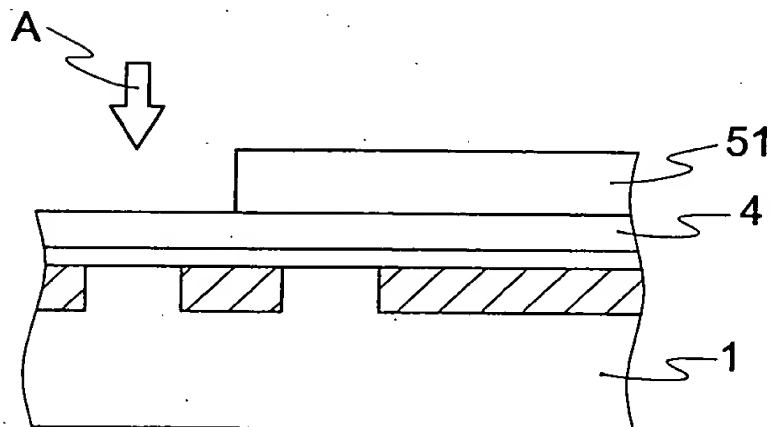


FIG. 13 (a)

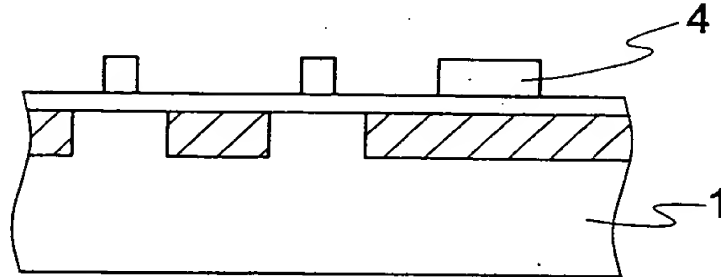


FIG. 13 (b)

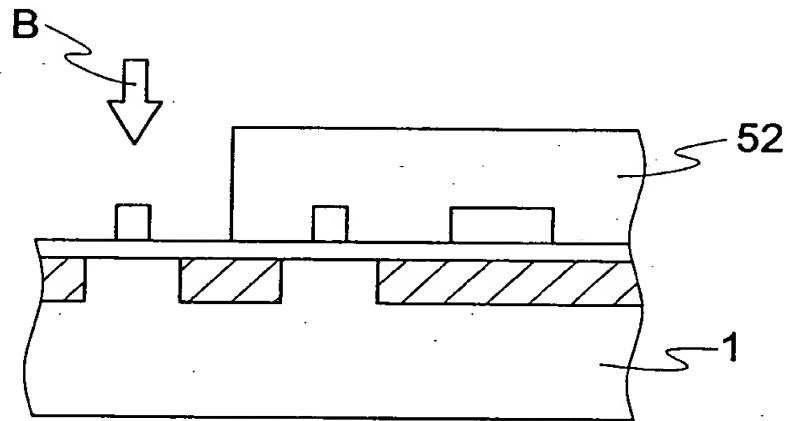


FIG. 13 (c)

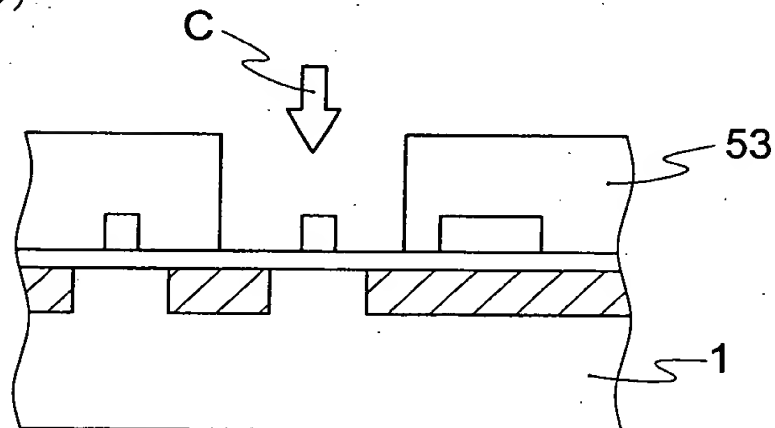


FIG. 14 (a)

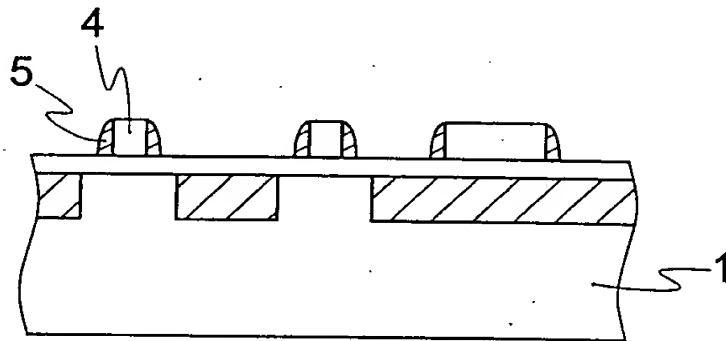


FIG. 14 (b)

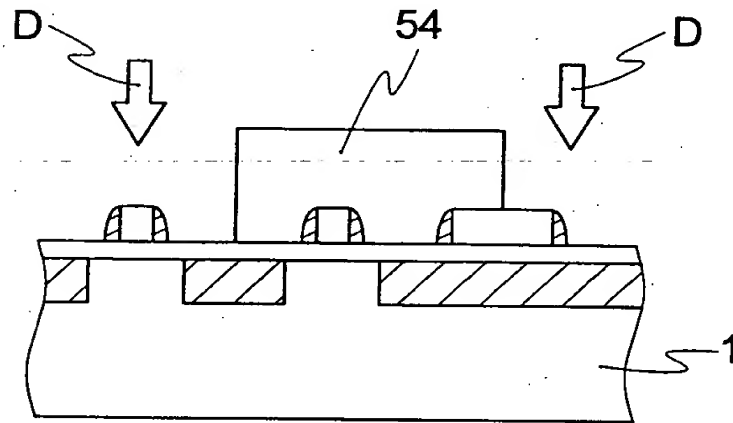
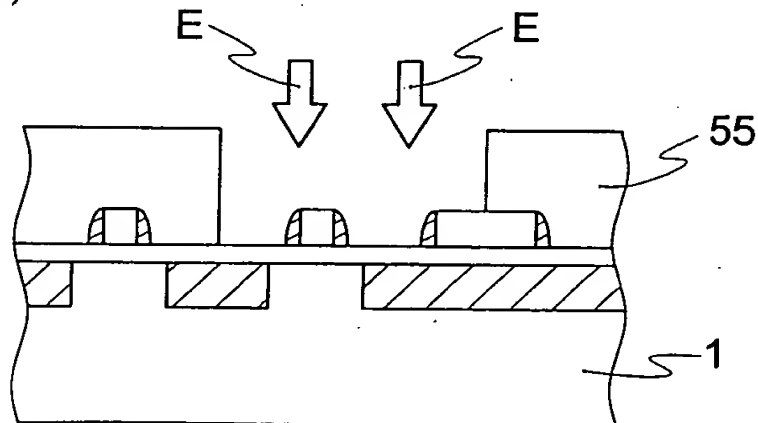


FIG. 14 (c)



0011501 072501  
105220 10511000

FIG. 15 (a)

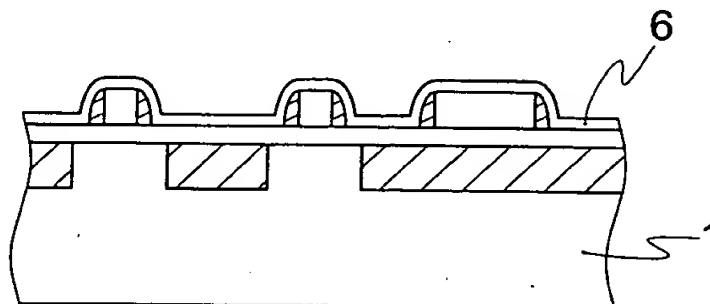


FIG. 15 (b)

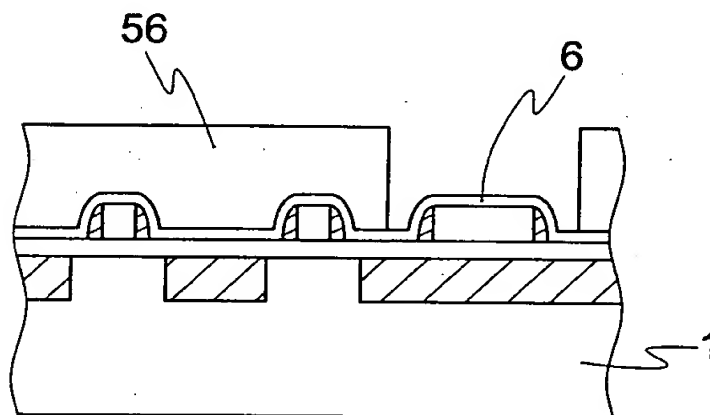
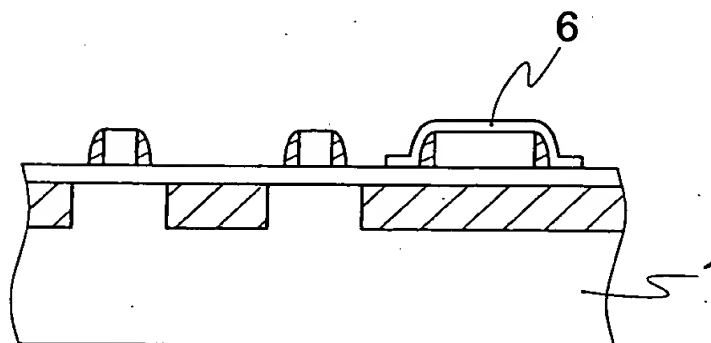


FIG. 15 (c)



0001501.072504  
F05220.18511660

FIG. 16 (a)

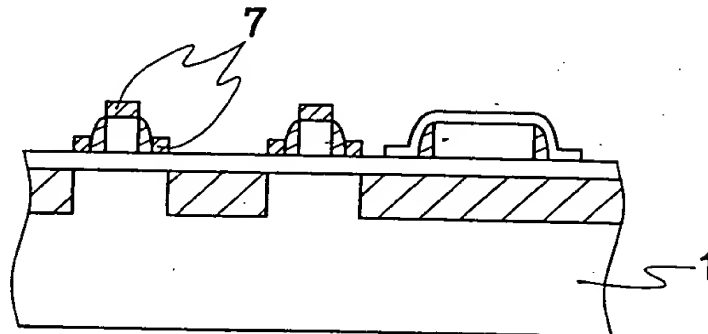


FIG. 16 (b)

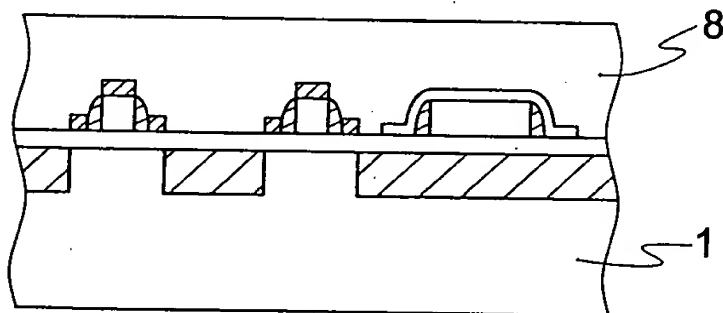




FIG. 17 (a)

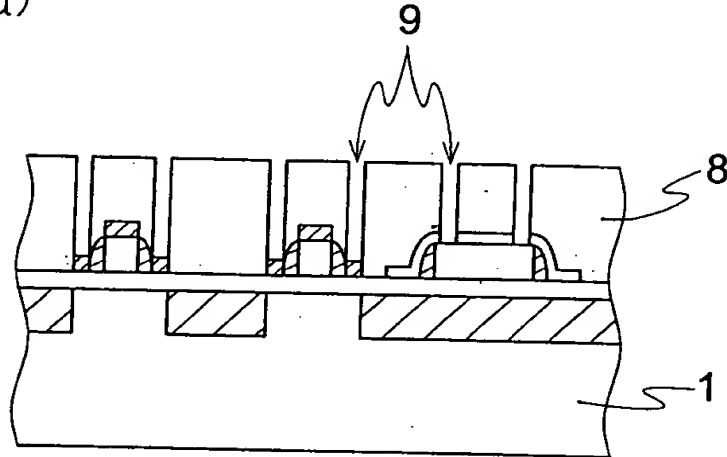


FIG. 17 (b)

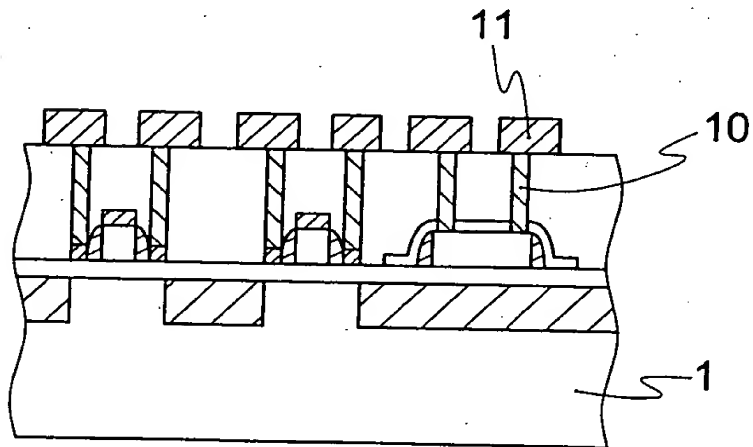


FIG. 18(a)

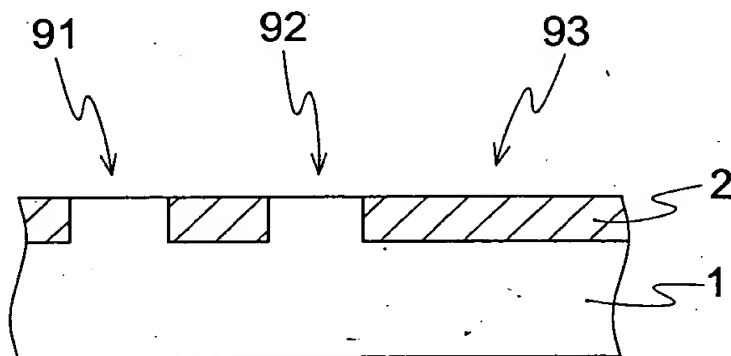


FIG. 18(b)

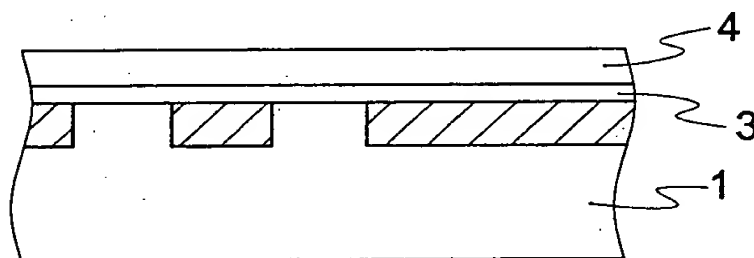


FIG. 18(c)

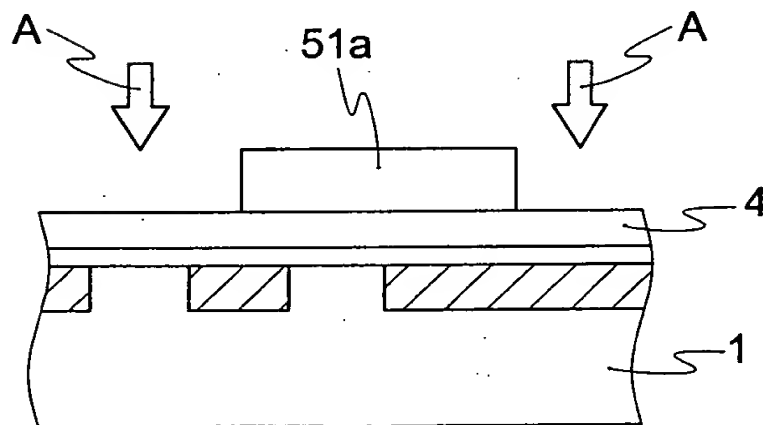


FIG. 19(a)

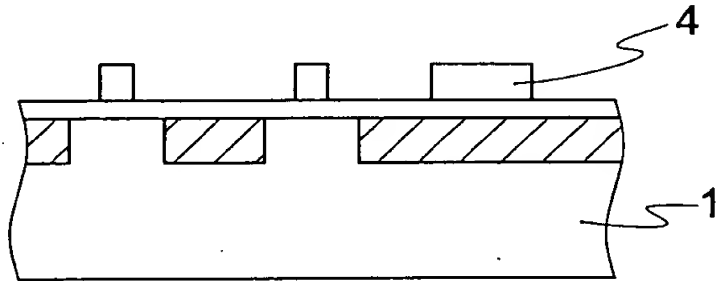


FIG. 19(b)

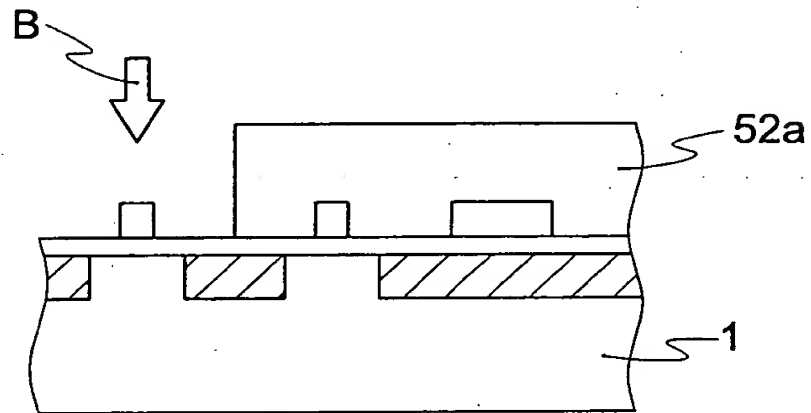


FIG. 19(c)

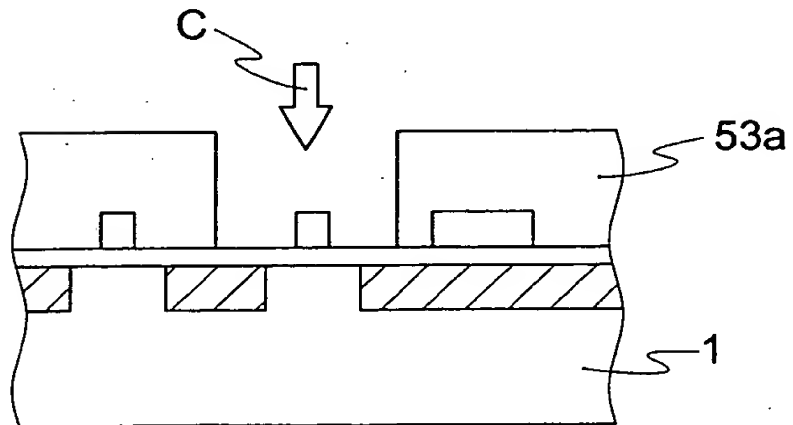


FIG. 20(a)

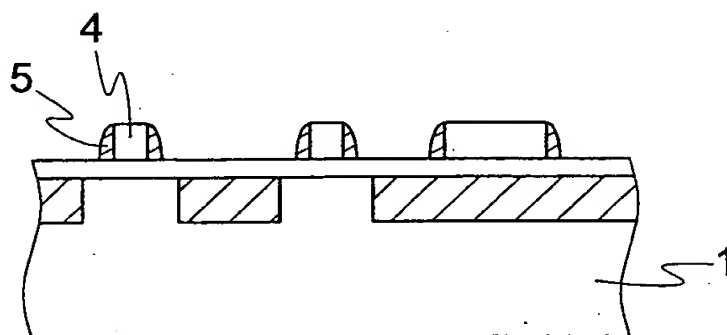


FIG. 20(b)

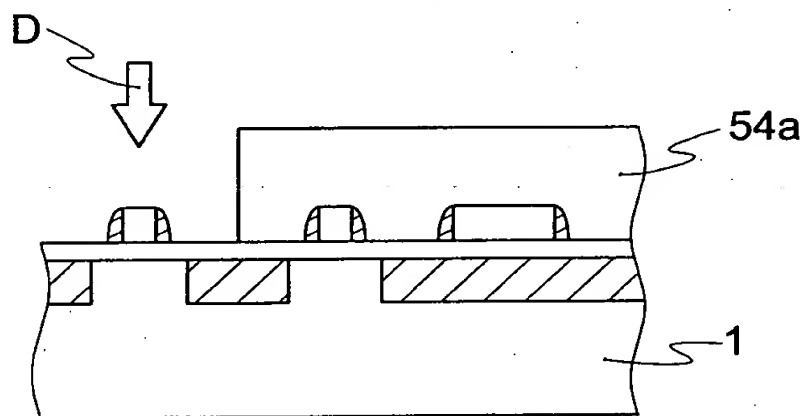
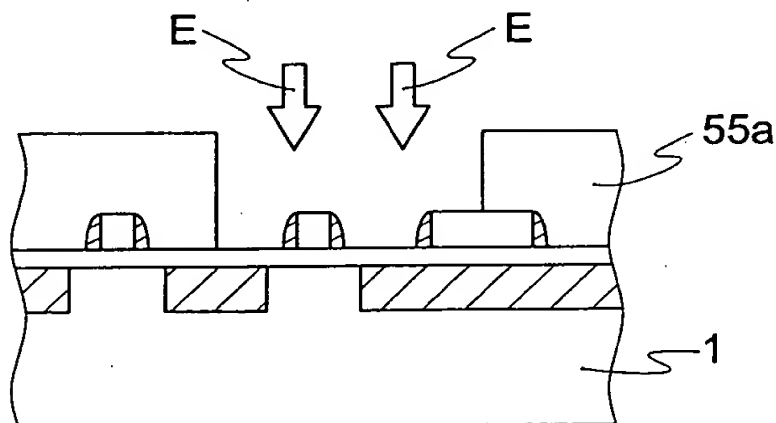


FIG. 20(c)



0001501.073604  
FIG. 20(a)

FIG. 21(a)

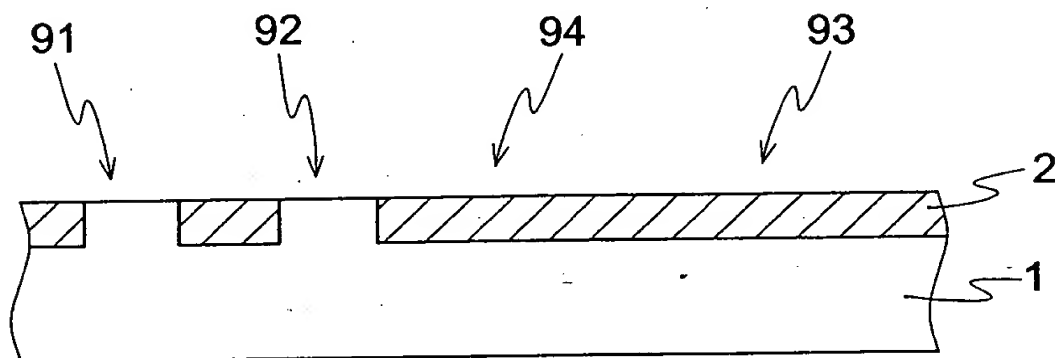


FIG. 21(b)

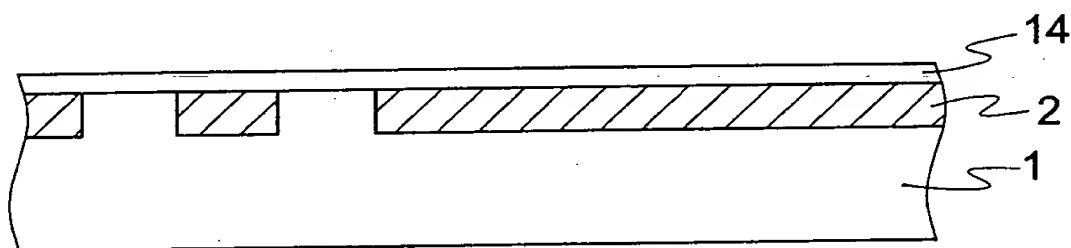


FIG. 21(c)

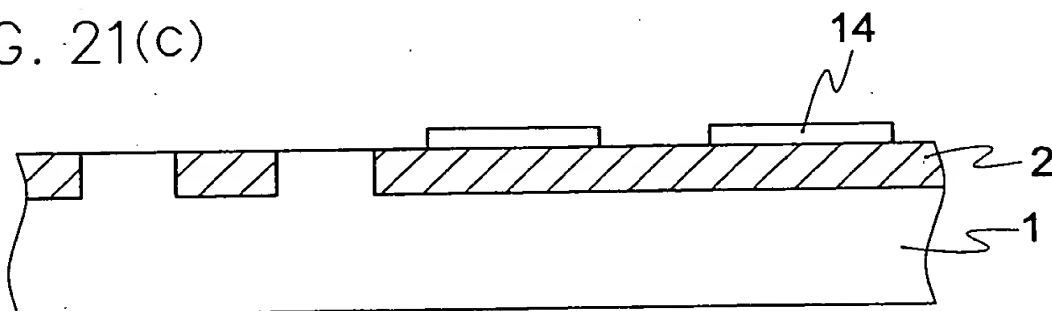


FIG. 22(a)

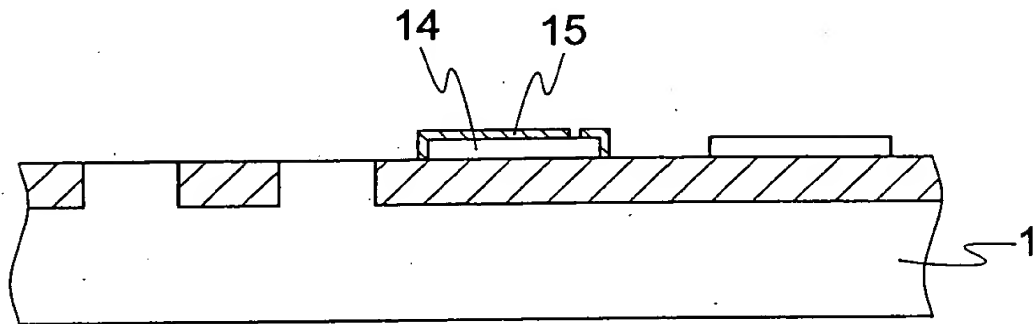


FIG. 22(b)

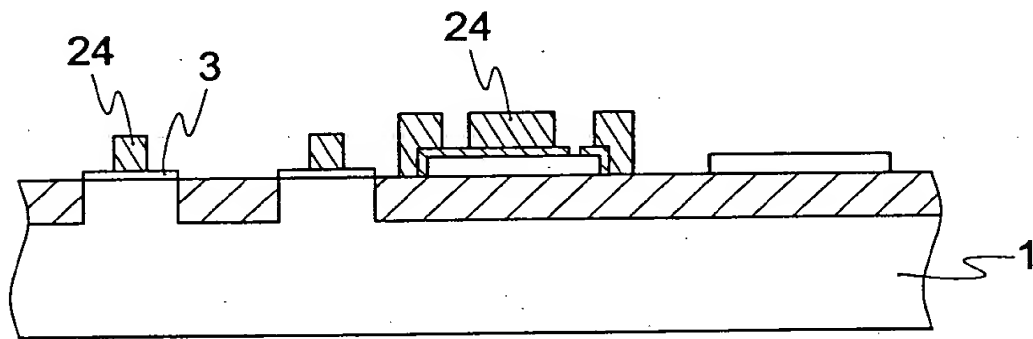


FIG. 22(c)

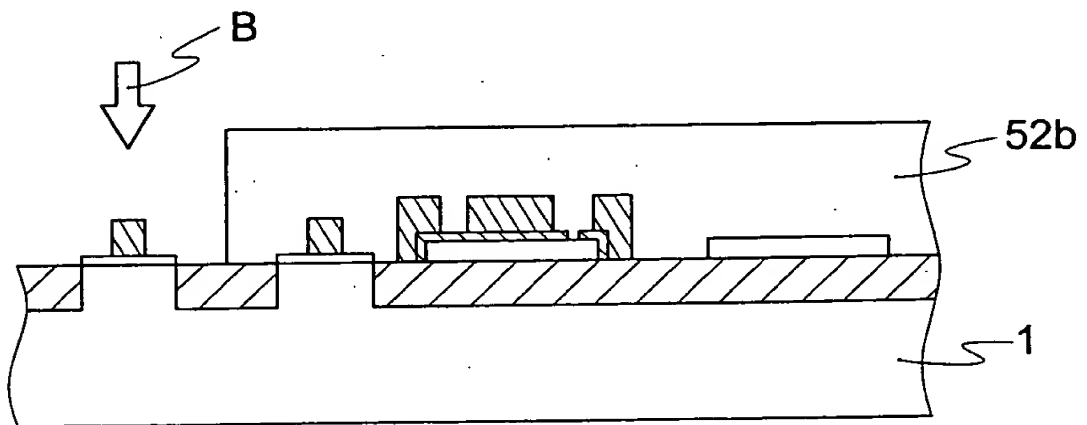


FIG. 23(a)

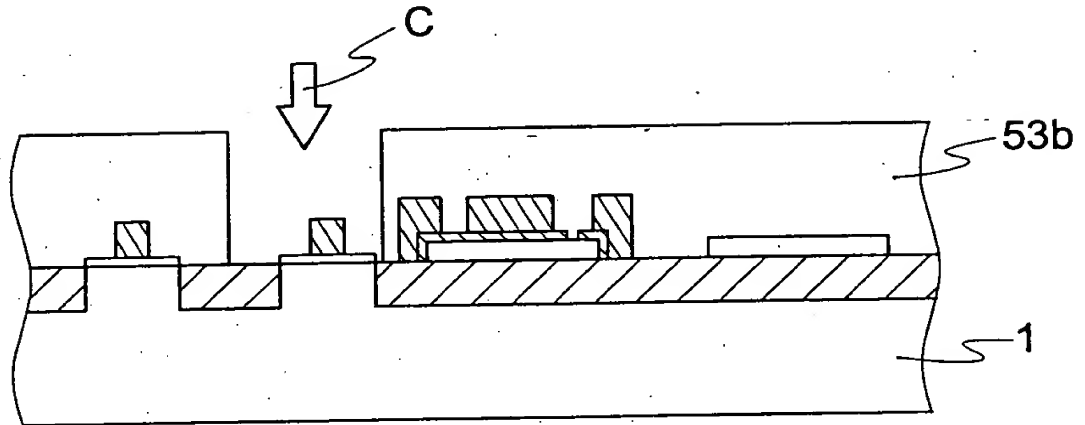


FIG. 23(b)

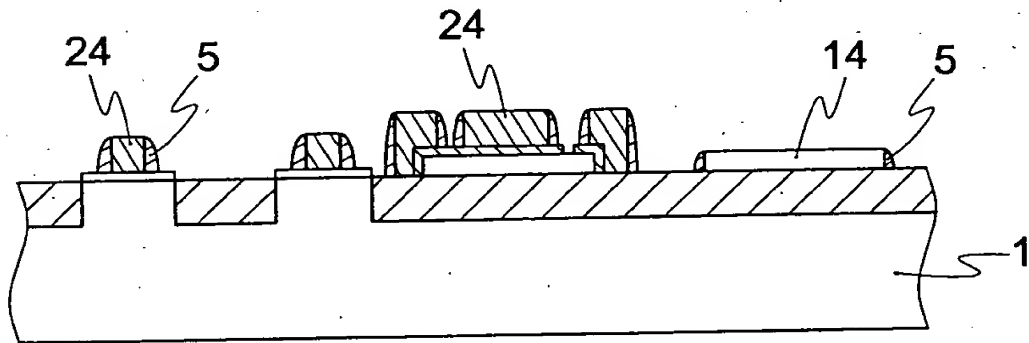


FIG. 24(a)

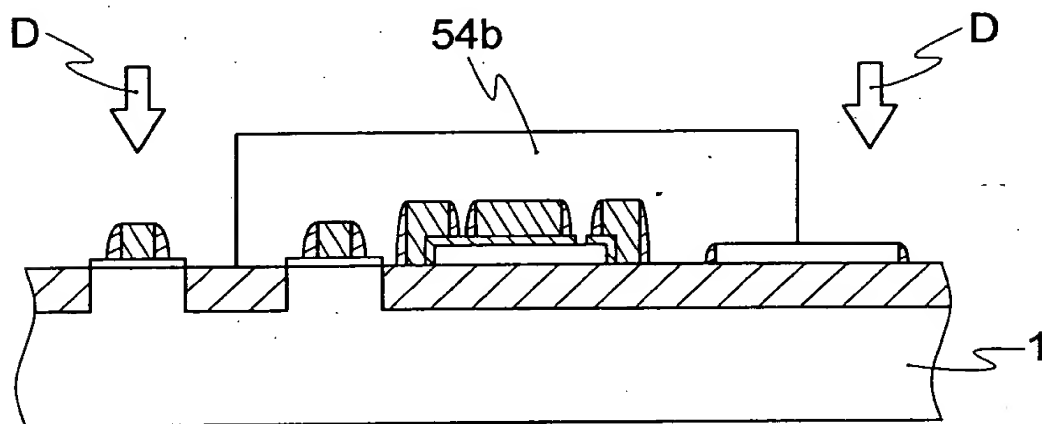


FIG. 24(b)

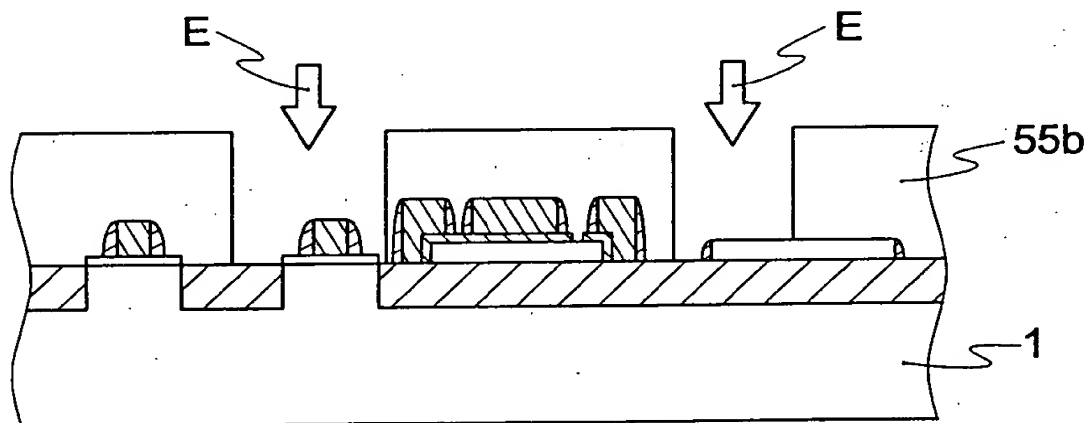




FIG. 25(a)

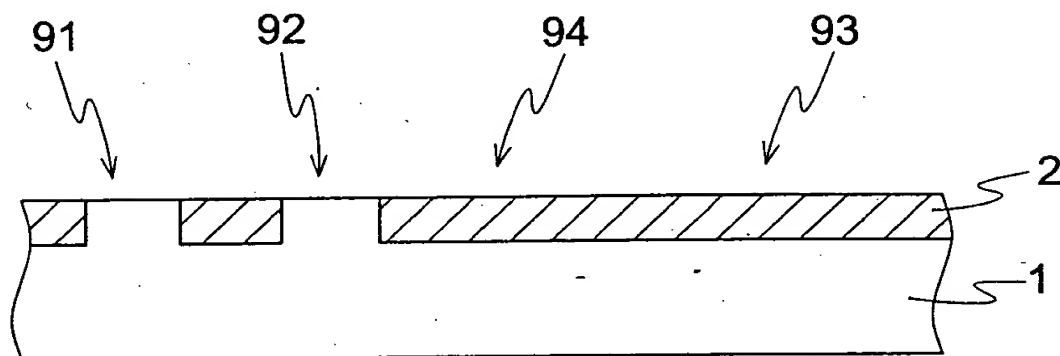


FIG. 25(b)

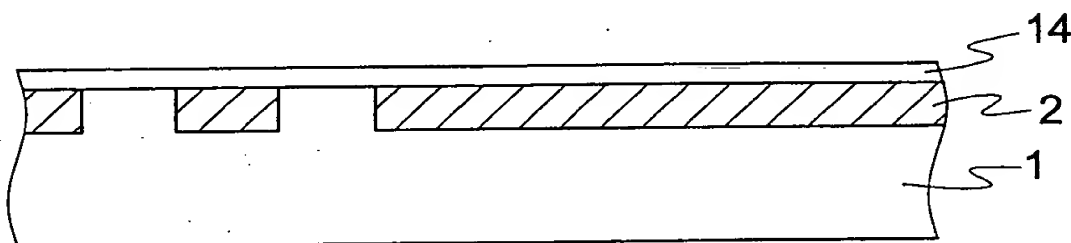


FIG. 25(c)

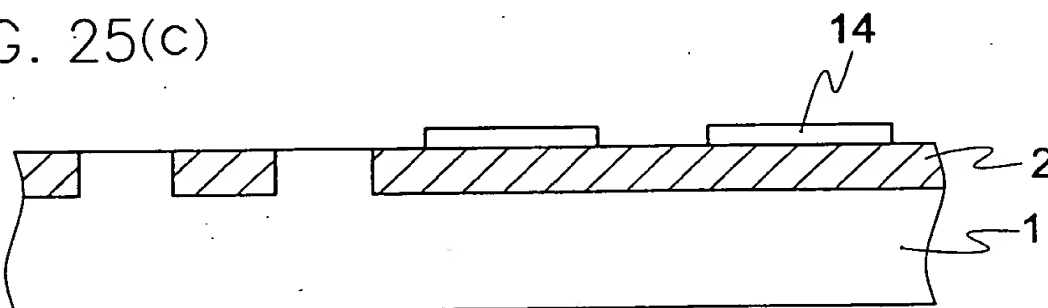


FIG. 26(a)

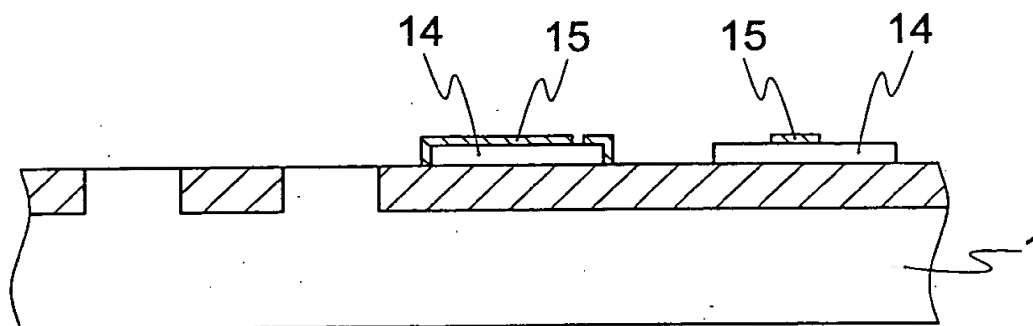


FIG. 26(b)

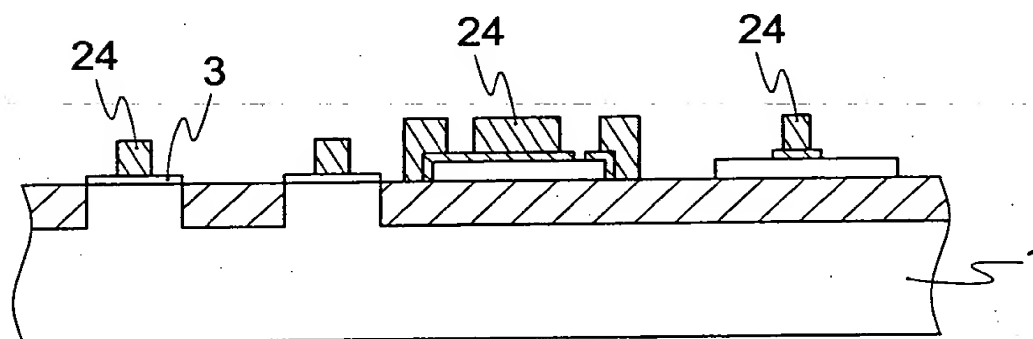


FIG. 26(c)

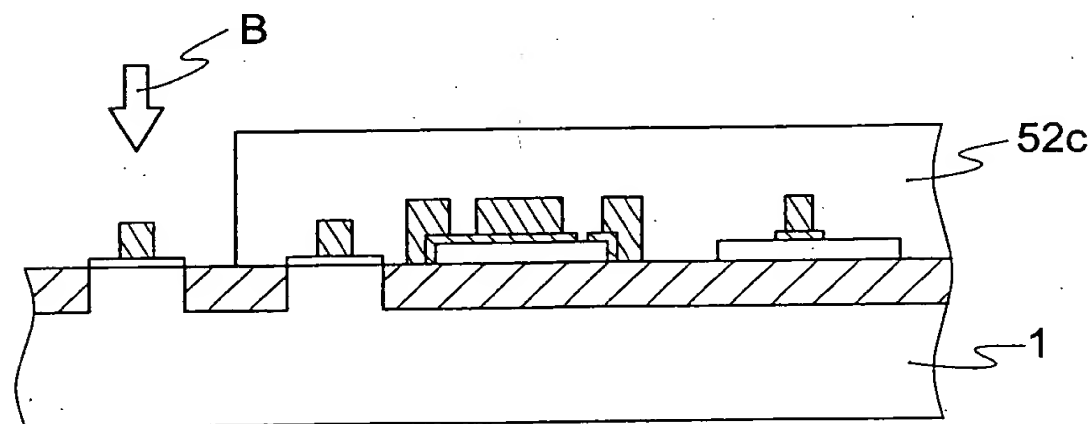


FIG. 27 (a)

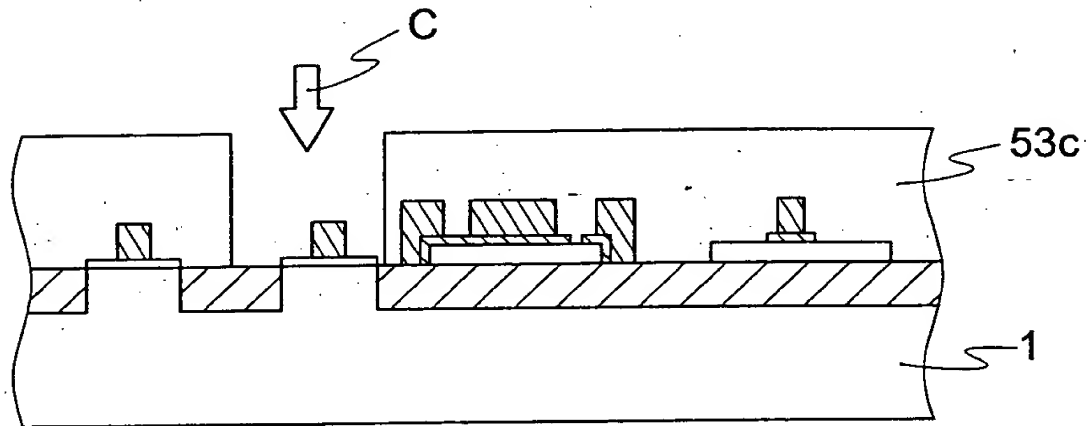
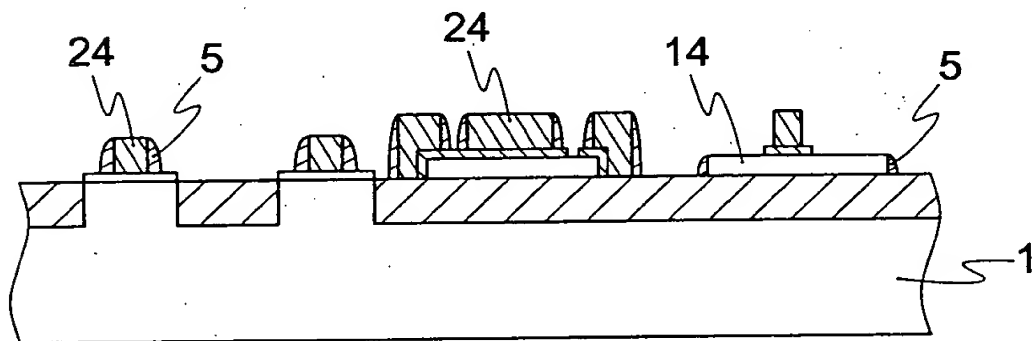


FIG. 27 (b)



0091584.07504  
F05220.7851600

FIG. 28(a)

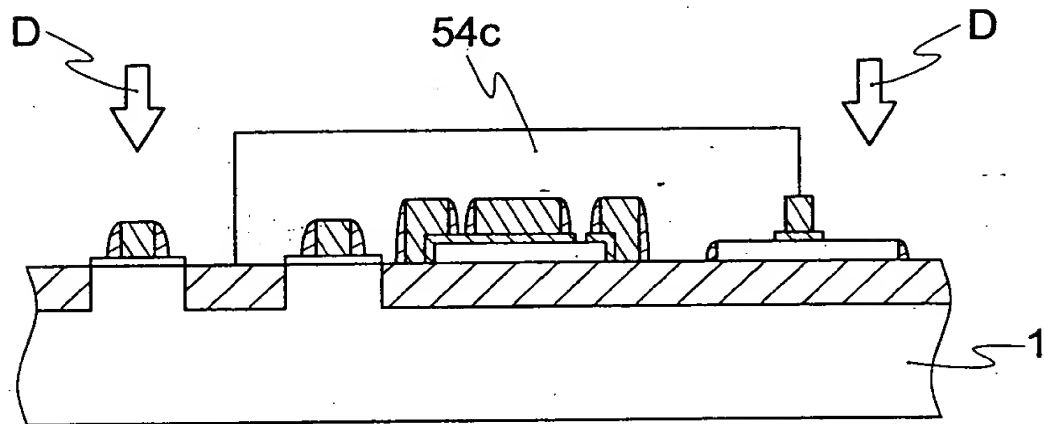


FIG. 28(b)

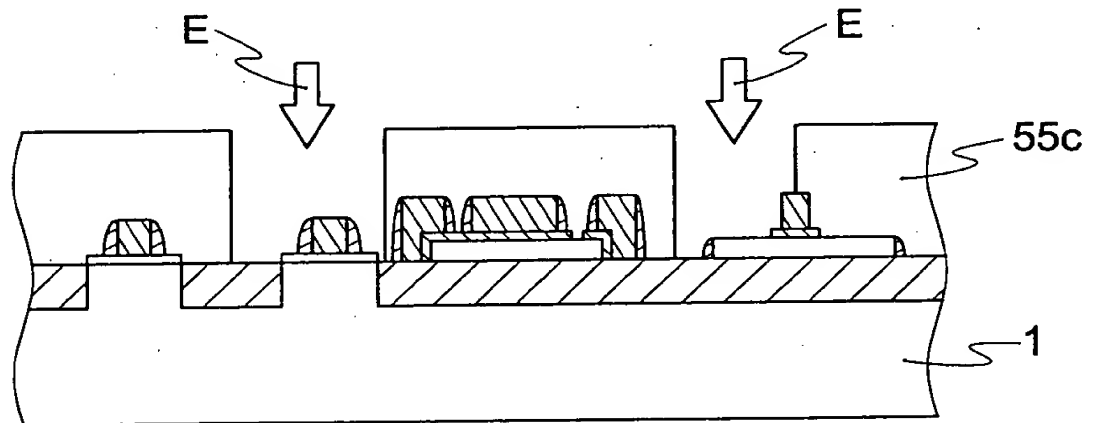


FIG. 29(a)

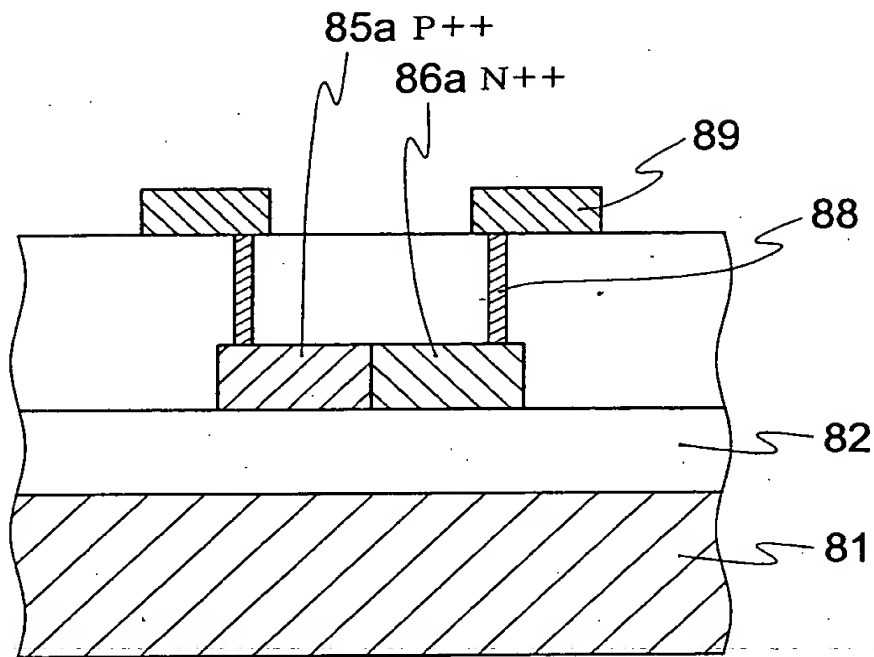


FIG. 29(b)

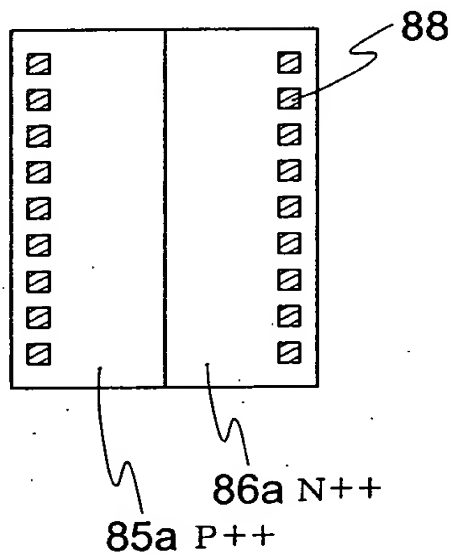


FIG. 30(a)

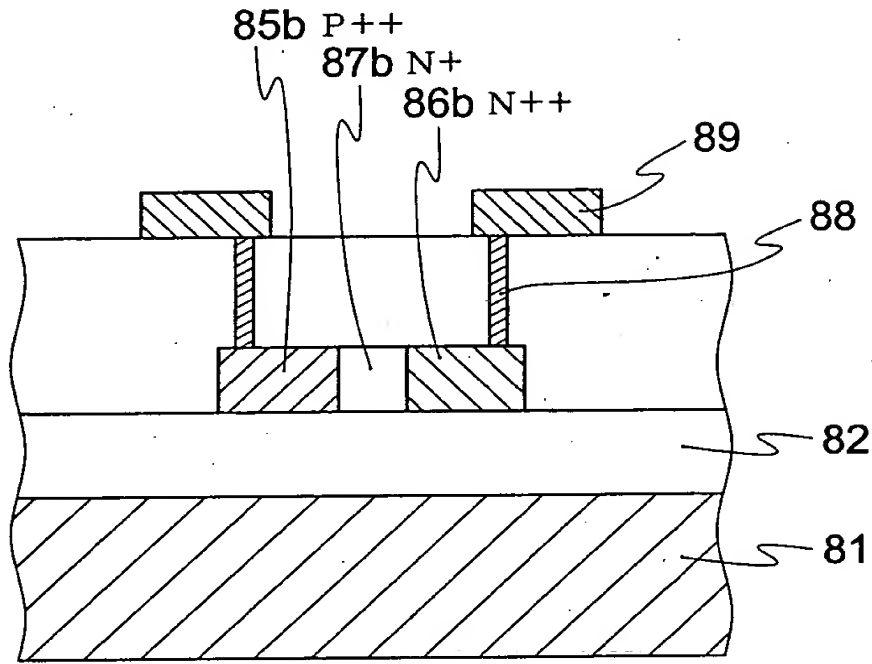


FIG. 30(b)

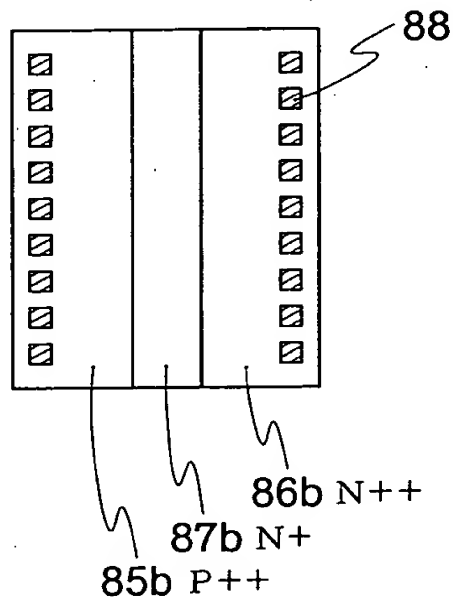


FIG. 31(a)

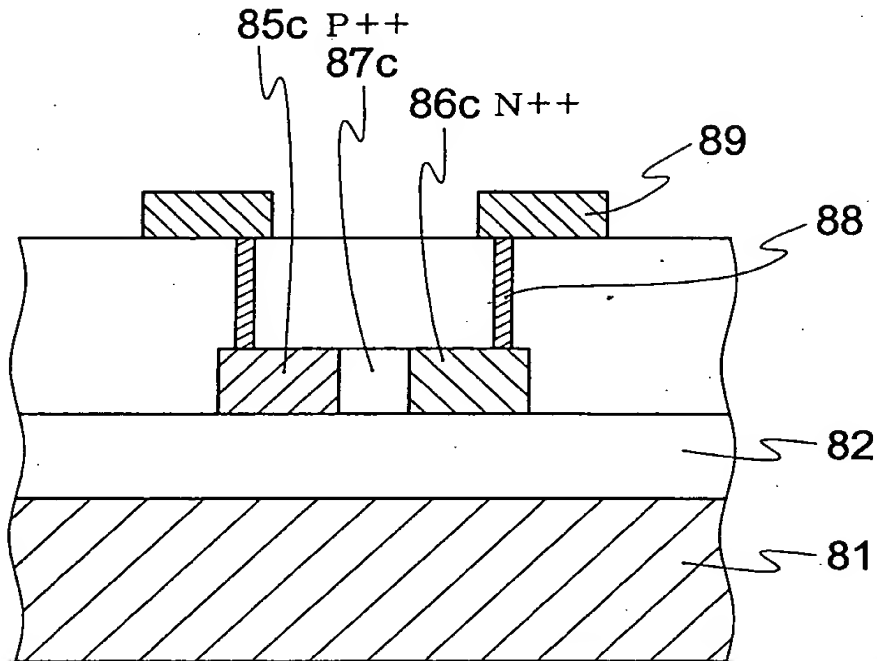


FIG. 31(b)

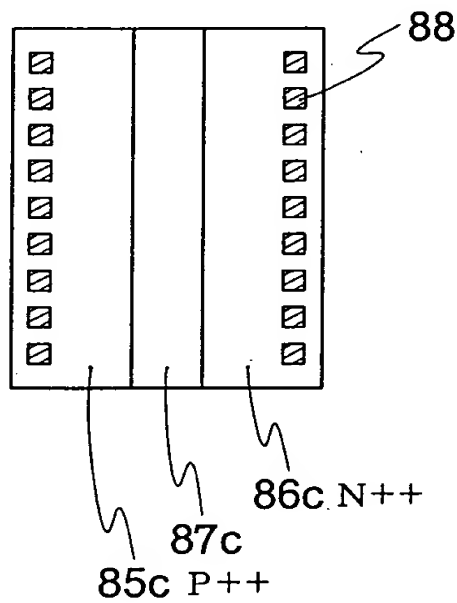


FIG. 32(a)

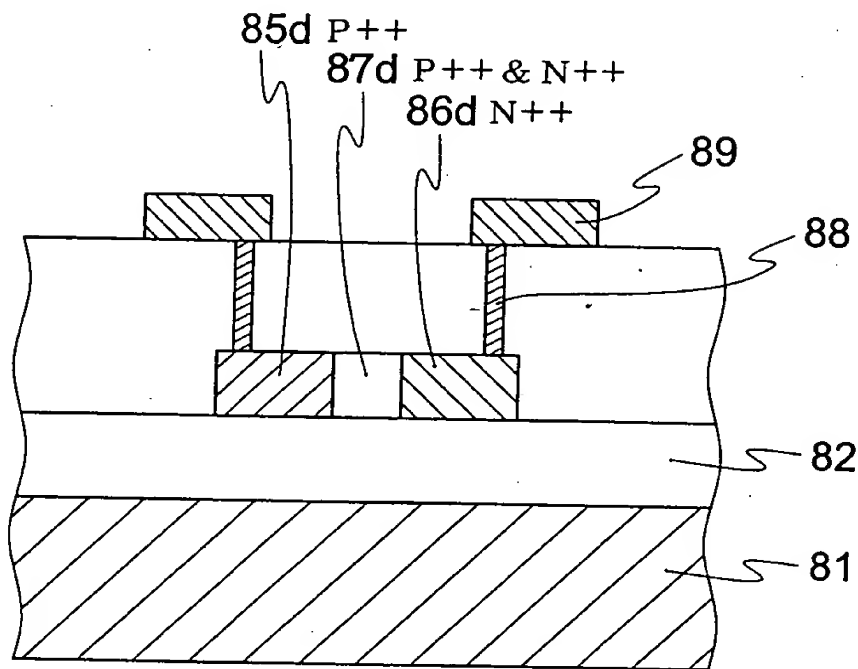


FIG. 32(b)

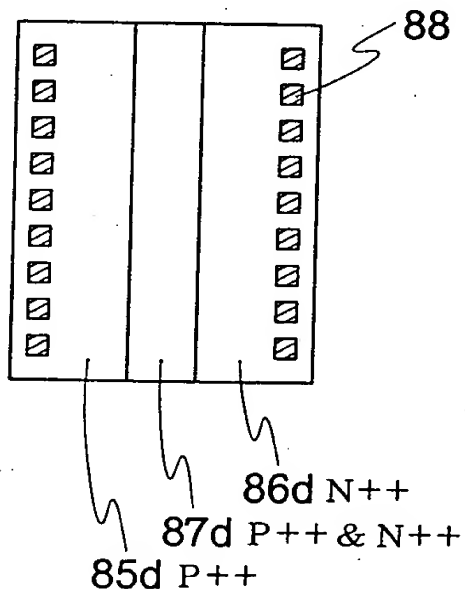
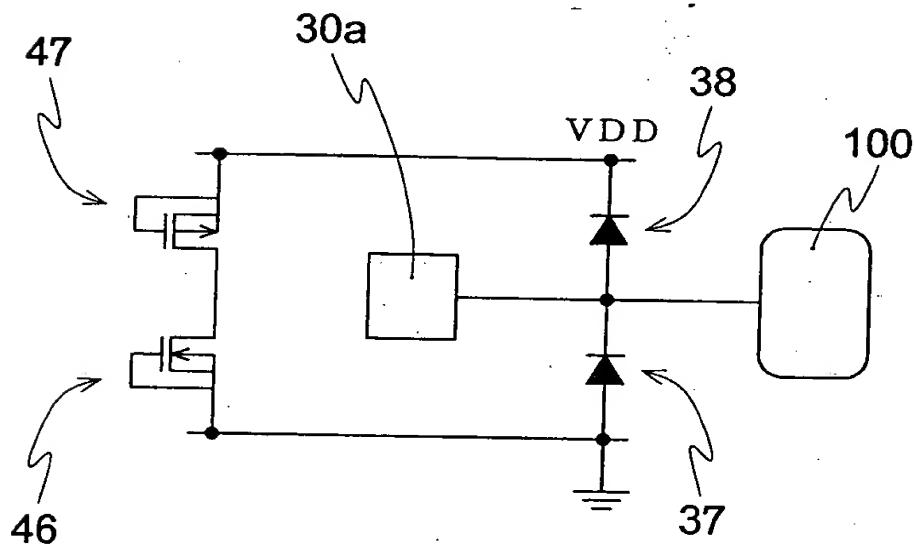




FIG. 33



401308-18511650

FIG. 34(a)

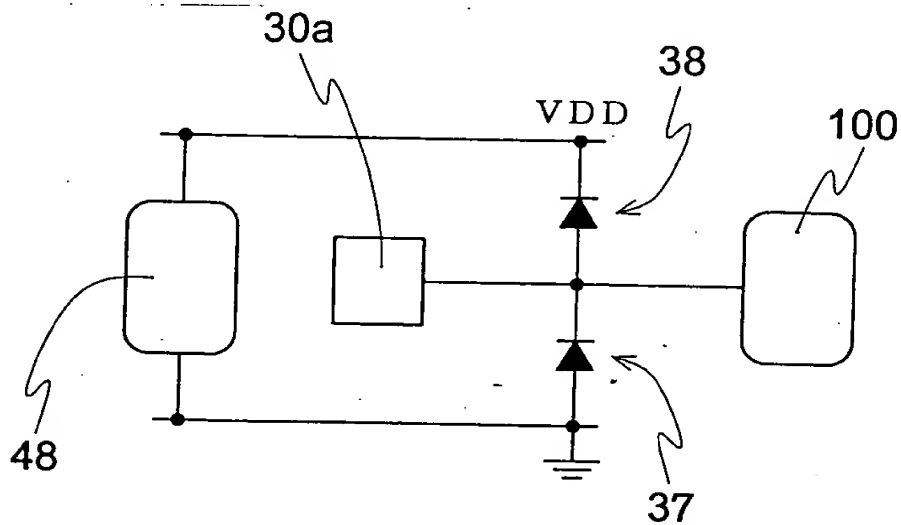


FIG. 34(b)

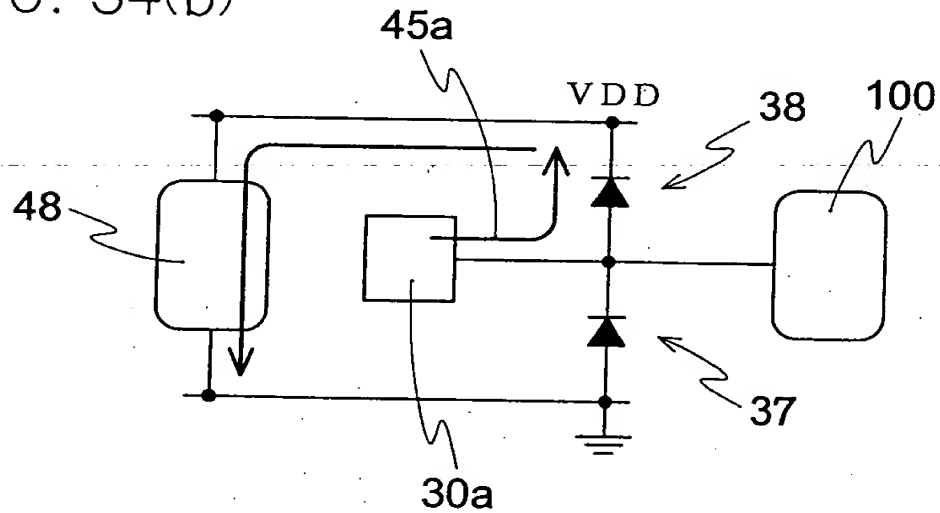


FIG. 34(c)

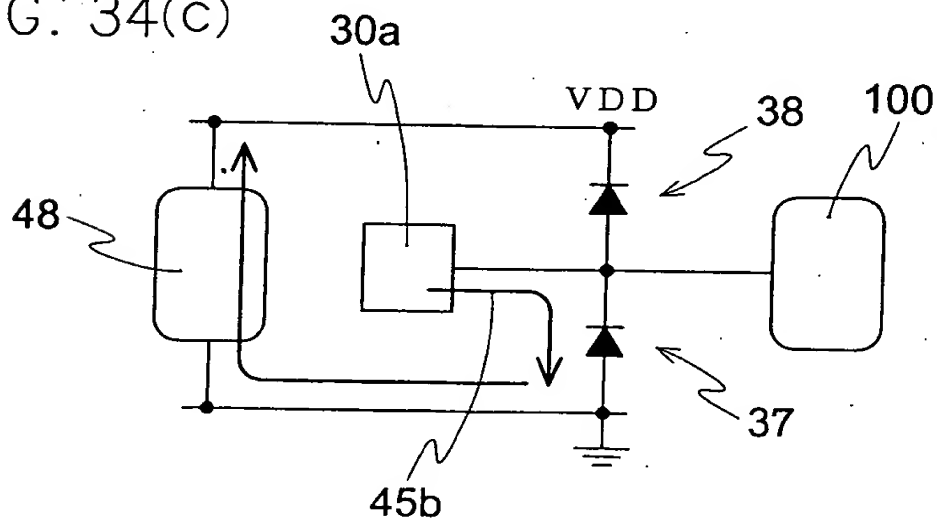


FIG. 35

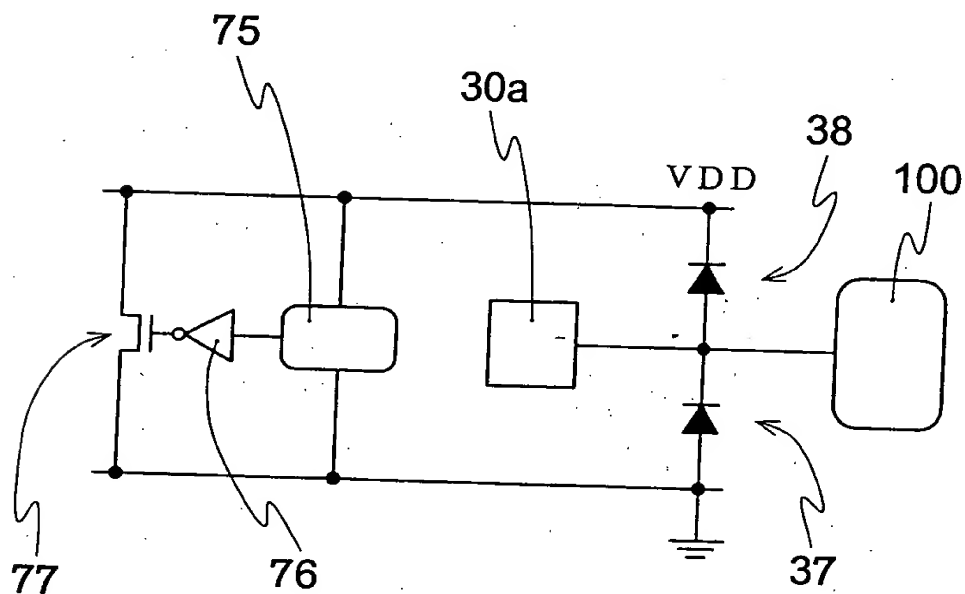


FIG. 36

